

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number  
**WO 2005/081466 A1**

(51) International Patent Classification<sup>7</sup>: **H04L 12/56**,  
29/08, 29/12, 29/06

(21) International Application Number:  
PCT/EP2004/050129

(22) International Filing Date: 13 February 2004 (13.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **TELEFONAKTIEBOLAGET LM ERICSSON** (publ)  
[SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SALMELA, Patrik** [FI/FI]; Hevoshaka 21, FIN-02410 Kirkkonummi (FI). **WALL, Jorma** [FI/FI]; Pisanmäki 1 A 2, FIN-02280 Espoo (FI). **JOKELA, Petri** [FI/FI]; Säterinkatu 7 A 1, FIN-02600 Espoo (FI).

(74) Agents: **BREWER, Michael, Robert** et al.; Marks & Clerk, 4220 Nash Court, Oxford Business Park South, Oxford Oxfordshire OX4 2RU (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

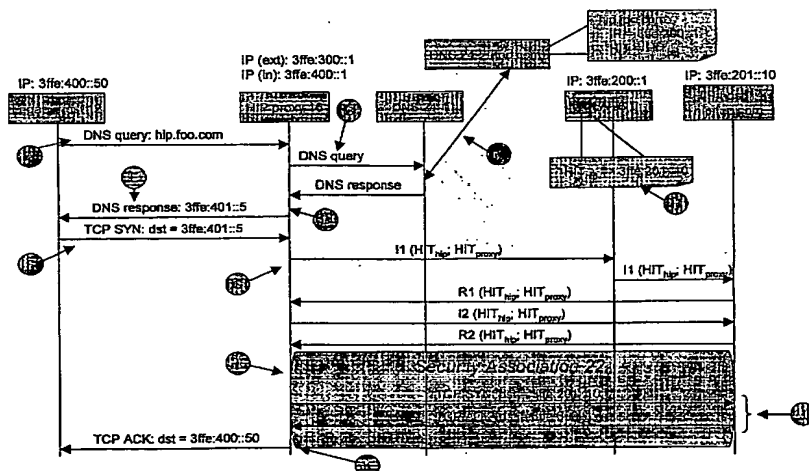
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ADDRESSING METHOD AND METHOD AND APPARATUS FOR ESTABLISHING HOST IDENTITY PROTOCOL (HIP) CONNECTIONS BETWEEN LEGACY AND HIP NODES



(57) Abstract: A method is provided of at least partially securing communications, via a HIP proxy (16), between a first host (12) which is not HIP enabled and a second host (14) which is HIP enabled, the method comprising: sending (A) a query from the first host (12) to resolve the IP address of the second host (14); in response to said query, retrieving (B, C) an EP address (IP<sub>fa</sub>) and (HIT<sub>hip</sub> associated with the second host (14), returning (E) tom. the proxy (16) a substitute IP address (IP<sub>res</sub>) associated with the second host (14), and maintaining (D) at the proxy (16) a mapping between the substitute IP address (IP<sub>res</sub>), the retrieved IP address (IP<sub>fa</sub>) and the retrieved HIT (HIT<sub>hip</sub>); and upon receipt (F) of a session initiation message (TCP SYN) at the proxy (16) from the first host (12) including as its destination address the, substitute IP address (IP<sub>res</sub>), using the mapping to negotiate a secure HIP, connection (22) between the proxy (16) and the second host (14).